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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/568,143	03/27/2006	Marc H. Schneider	P18735USPC	6154
29078	7590	11/10/2009	EXAMINER	
CHRISTIAN D. ABEL			CAMERON, ERMA C	
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NORWAY				
			ART UNIT	PAPER NUMBER
			1792	
			NOTIFICATION DATE	DELIVERY MODE
			11/10/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

vest@onsagers.no
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Office Action Summary	Application No. 10/568,143	Applicant(s) SCHNEIDER, MARC H.	
	Examiner /Erma Cameron/	Art Unit 1792	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 October 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4,5,7-13 and 27-32 is/are pending in the application.
- 4a) Of the above claim(s) 31 and 32 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,5,7-13 and 27-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

Note: withdrawn claims 31 and 32 should contain text.

Claim Objections

1. Claims 7 and 8 are objected to because of the following informalities:
 - a) Claims 7-8: the original nomenclature of the chemical names should be restored (i.e. 2, 2' and 1,1'. The examiner's comment about using American notation for decimal points (i.e. 0.3% instead of 0,3%) does not apply to the chemical names.Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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3. Claims 1-2, 4-5, 7-13 and 27-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schneider (Wood Science and Technology vol. 29, pp 121-127, 1995) further taken in view of WO 02/30638 and WO 01/53050.

Schneider teaches a wood-treating combination of furfuryl alcohol-initiator for the cell walls and methyl methacrylate-initiator-crosslinker for polymerizing in cell lumens, followed by heating and curing at 70-120 C (see pages 121-123).

Schneider fails to teach that the initiator for the furfuryl alcohol is maleic anhydride.

'638 teaches a wood treating formulation of furfuryl alcohol and 5-20wt% of maleic anhydride as initiator in a vacuum-pressure operation, followed by curing at 70-140 C (3:2-39).

It would have been obvious to one of ordinary skill in the art to have substituted the maleic anhydride of '638 for the furfuryl alcohol initiator used by Schneider because of the teaching of '638 that furfuryl alcohol and maleic anhydride are a conventional formulation for wood cell wall treatment.

Schneider fails to teach a styrene- initiator-crosslinker as the cell lumen treating formulation.

'050 teaches a wood-treating formulation that polymerizes in the cavities or lumen of wood, made of methyl methacrylate or styrene, divinyl benzene as crosslinker, and the three initiators as claimed, and optionally oil or wax (1:10-28; 2:8-17; 4:21-5:7; Table 1). A vacuum-pressure operation is used, and the polymer is cured by heating at 70-140 C (9:7-19).

It would have been obvious to one of ordinary skill in the art to have used the '050 formulation comprising styrene, combined with the claimed 3 initiators and claimed crosslinker, as the formulation to be used in the Schneider process for treating the cell lumen, in place of the

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methyl methacrylate of Schneider, because of the teaching of '050 that such a formulation is a conventional one for treating cell lumen in wood and because of the teaching of Schneider that such a combination of cell wall treatment and cell lumen treatment results in a stabilized wood polymer composite (p 127).

Response to Arguments

The applicant has argued that one of skill in the art would have expected the combination of the references to result in uncontrollable polymerization. It is the examiner's position that one of skill in the art, wanting to combine cell wall treatment and cell lumen treatment, as taught by Schneider, would experiment with the order of addition of chemicals in order to avoid poor results, such as uncontrollable polymerization.

Response to Amendment

4. The Declaration under 37 CFR 1.132 filed 10/12/2009 is insufficient to overcome the rejection of claims 1, 2, 4, 5, 7-13 and 27-30 based upon Schneider (Wood Science and Technology vol. 29, pp 121-127, 1995) further taken in view of WO 02/30638 and WO 01/53050 as set forth in the last Office action because: KSR international Co. v. Teleflex, Inc. (see MPEP 2143) established that choosing from a finite number of identified, predictable solutions, in order to overcome a problem, supports a conclusion of obviousness. In other words, if the experimenter, striving to combine a cell wall treatment process and a cell lumen treatment process, found that one order of combining ingredients resulted in a poor result, would be motivated to select other orders of addition of the chemicals.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to /Erma Cameron/ whose telephone number is 571-272-1416. The examiner can normally be reached on 8:30-6:00, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on 571-272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Erma Cameron/
Primary Examiner
Art Unit 1792

November 5, 2009